



**UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/943,742	10/03/97	EYLES	DR-232J

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LM32/0213

EXAMINER

DOWNS, R

ART UNIT	PAPER NUMBER
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2762

24

DATE MAILED: 02/13/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/943,742**

Applicant(s)

**EYLES**

Examiner

**ROBERT W. DOWNS**

Group Art Unit

**2762**



☒ Responsive to communication(s) filed on Oct 3, 1997

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 1-25 is/are pending in the applicat

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-25 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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1. A preliminary amendment stating that the application is a continuation of Serial Number 08/366,009 has not been made to the first line of the specification. An amendment to this effect is required if continuity back to Serial Number 07/891,934 is sought.

2. The disclosure stands objected to because the computer programs in appendix A and B, are partially illegible and should be replaced with clean copies. Appropriate correction is required.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-25 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Perkins et al., "Adding Temporal Reasoning to Expert-System-Building Environments (February 1990), for the same reasons found in the Office action mailed November 28, 1995.

The applicant's arguments concerning the type of processing taught in the Perkins reference are not persuasive. In summary, applicant's argue that the Perkins reference refers to an IF-THEN

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structure that requires a loop to be programmed, comparable to conventional IF-THEN statements. The examiner cannot concur. "IF-THEN rules" in expert systems are not the same as "IF-THEN structures" found in conventional programming languages. Thus, contrary to the applicant's argument, the WHEN-THEN structures in Perkins are not the same as the IF-THEN structures found in conventional programming languages. The WHEN-THEN structures that are entered into the LES shell of Perkins are declarative knowledge structures that are generally autonomous, self-standing entities. Control of execution of the WHEN-THEN structures is conducted by a separate inference engine that provides the automatic evaluation. Further, controlling of execution of the WHEN-THEN rules does not require entering a control loop to recursively evaluate the rules. It is in the conventional languages like COBOL, C, and BASIC, that the IF-THEN structures are positioned relative to each other in a program, are a procedural element of a program, are not independent, and do not represent declarative knowledge.

For further background on the subject, Chapter 3 of Ken Pedersen, Expert Systems Programming, Wiley (1989), provides an introduction to expert systems and compares IF-THEN rules to conventional IF-THEN structures. Pedersen points out where IF-THEN rules are not IF-THEN structures in conventional programming languages (see pages 46-47, "Rules Are Your Reasoning Building

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Blocks"). IF-THEN rules make up the knowledge base in an expert system (see page 40). Pedersen teaches that unlike conventional IF-THEN structures, IF-THEN rules are independent units that are not procedurally linked to other rules. The IF-THEN rules are not procedural statements in a program, but are knowledge about a particular domain. Pedersen points out where an expert system shell includes a user interface and an inference engine, and only the knowledge base of IF-THEN rules has to be added. The inference engine is already programmed and controls execution of the rules. Thus, there is no need to program a loop to recursively evaluate rules.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,175,795 (Tsuda et al.), discloses a When-If-Then rule structure at column 3, lines 3-7.

6. This is a continuation of applicant's earlier Application No. 08/786,048. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is

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reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Downs whose telephone number is (703) 305-9642.

RWD  
February 10, 1998



**ROBERT W. DOWNS**  
**PRIMARY EXAMINER**